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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,956	09/18/2001	Motohiro Tanno	3815/131	8525

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EXAMINER	
HOOSAIN, ALLAN	

ART UNIT	PAPER NUMBER
2645	5

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/954,956	TANNO ET AL.	
	Examiner	Art Unit	
	Allan Hoosain	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by **Sarkar** (US 6,363,060).

As to Claims 1,9,21, with respect to Figures 4-6, **Sarkar** teaches a cell search method for a mobile station in a mobile communication system, the method comprising a first step of:

despreading a received signal using a common spreading code common to all slots and detecting slot boundaries on the basis of SSC and PSC (first average correlation coefficient) (Figure 4, label 104),

a second step of despreading the signal on the basis of said slot boundaries detected at the first step, using different individual spreading codes for said respective slots (Col. 7, lines 12-27), and

detecting frame boundaries and a scramble code group on the basis of a SSC,PSC,Pilot (second average correlation coefficient) (Figure 4, label 108), and

a third step of descrambling a common pilot signal on the basis of said frame boundaries and scramble code group detected at the second step (Col. 8, lines 54-65), and

detecting a scramble code on the basis of a third average correlation coefficient, the method being characterized in that:

the detection results for said frame boundaries and scramble code are judged on the basis of a ratio of the largest one of a plurality of said third average correlation coefficients to a predetermined reference value (Col. 8, lines 22-27 and Col. 9, lines 24-31).

As to Claims 2,10,14,22, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 1, characterized in that said reference value is set on the basis of interference power calculated from said received signal by said mobile station (Col. 9, lines 5-11).

As to Claims 3,12,15,23, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 1, characterized in that said reference value is set on the basis of said plurality of third average correlation coefficients except the largest one thereof (Col. 8, lines 44-47 and 59-65).

As to Claims 4,16,24, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 3, characterized in that said reference value is an average or a median of said plurality of third average correlation coefficients except the largest one thereof (Col. 10, lines 23-48).

As to Claims 5,17, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 1, characterized in that said reference value is set on the basis of a plurality of said second average correlation coefficients except the largest one thereof (Col. 8, lines 44-47 and 59-65).

As to Claims 6,18, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 5, characterized in that said reference value is an average or a median of said plurality of second average correlation coefficients except the largest cone thereof (Col. 10, lines 23-48).

As to Claims 7,19, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 1, characterized in that said reference value can be set on the basis of a plurality of said first average correlation coefficients (Col. 8, lines 38-44).

As to Claims 8,20, **Sarkar** teaches the cell search method for a mobile station in a mobile communication system according to Claim 7, characterized in that said reference value is an average or a median of an arbitrary number of said first average correlation coefficients selected from said plurality of first average correlation coefficients in the ascending order of the value (Col. 10, lines 38-48).

As to Claim 13, with respect to Figures 4-7, **Sarkar** teaches a cell search apparatus for a mobile station in a mobile communication system, the apparatus comprising:

a first detector for despreading a received signal using a common spreading code common to all slots and detecting slot boundaries on the basis of a first average correlation coefficient (Figure 6, label 206),

a second detector for despreading the signal on the basis of said slot boundaries detected at the first step, using different individual spreading codes for said respective slots, and detecting frame boundaries and a scramble code group on the basis of a second average correlation coefficient (Figure 6, label 208), and

a third detector for descrambling a common pilot signal on the basis of said frame boundaries and scramble code group detected at the second step, and detecting a scramble code on the basis of a third average correlation coefficient (Figure 3, label 210), the apparatus being characterized by comprising:

judgement means f or judging the detection results for said frame boundaries and scramble code on the basis of a ratio of the largest one of a plurality of said third average correlation coefficients to a predetermined reference value (Figure 7).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nystrom et al. (US 6,185,244) teach cell searching in a CDMA system using properties for mapping code words.

Jamal et al. (US 5,930,366) teach synchronization to base stations using pilot codes.

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 306-0377 (for customer service assistance)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Allan Hoosain** whose telephone number is (703) 305-4012. The examiner can normally be reached on Monday to Friday from 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Fan Tsang**, can be reached on (703) 305-4895.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Allan Hoosain

Allan Hoosain
Primary Examiner
3/19/04